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U. S. DEPARTMENT OF AGRICULTURE

Patterns of Rice Distribution

IN THE UNITED STATES AND TERRITORIES

AMS-306

U. S. DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Marketing Research Division Washington, D. C.

PREFACE

This study is a part of a broad program of research conducted by the United States Department of Agriculture to assist in the development of markets for agricultural products. The study makes available for the first time data on rice distribution patterns by States, as well as related information on kind of buyer, packaging, and type of rice distributed, to assist the rice industry in their market development activities.

Appreciation is expressed to rice millers and repackagers whose excellent cooperation has made possible the reporting of virtually all domestic rice distribution.

This study was conducted under the direction of Marshall E. Miller of the Market Development Branch. Roland G. Harris, formerly of the Market Development Branch, assisted in the collection and analysis of the data for the 1956-57 marketing year. A preliminary report covering the 1955-56 marketing year, entitled "Domestic Distribution Pattern for Rice," AMS-193, prepared by Morris W. Sills of the Market Development Branch, was published in June 1957.

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May 1959

PATTERNS OF RICE DISTRIBUTION IN THE UNITED STATES AND TERRITORIES

By Harry O. Doty, Jr., agricultural economist
Market Development Branch

SUMMARY

Rice distribution patterns for the United States and territories in the 1955-56 and 1956-57 marketing years were similar in most respects. Distribution of milled rice reported by rice millers and repackagers for all purposes totaled 16.1 million hundredweight during the 1956-57 marketing year, only slightly under the 16.3 million hundredweight in 1955-56. About 78 percent of the 1956-57 total rice shipments were within the 48 continental States with the remaining 22 percent going to the territories (including Alaska and Hawaii, which were territories at that time). Rice distribution within the States in 1956-57 was made up of about 8.2 million hundredweight going to direct food uses, 1.6 million hundredweight going to processed food uses (cereals, baby food, canned rice, etc.), and 2.8 million hundredweight going to brewers.

Rice for direct food use was distributed unevenly in the United States. In 1956-57, about 92 percent of such rice went to States located in the Eastern half of the United States and to three of the major rice-producing States, Louisiana, California, and Texas. The quantity of rice going to States in the same region also varied widely. In some regions the quantities going to one State largely accounted for the total rice shipments to the region. For instance, California took 87 percent of the rice going to the Pacific region. Similarly the major portions distributed to Middle Atlantic and West South Central regions went to New York and Louisiana, respectively.

In 1956-57, as in the previous marketing year, the State receiving the largest quantity of rice for direct food use was New York, with 15 percent of total distribution, followed by Louisiana with 13 percent, California with 10 percent, South Carolina with 8 percent, and Texas with 7 percent. Over 53 percent of the rice shipments for direct food use went to these five States. By contrast, 20 States accounted for less than 5 percent of the rice distributed in the United States for direct food use.

Rice distributed for direct food use also varied widely on a per capita basis among States. Only 12 States had direct food distribution of rice higher than the United States average of 4.8 pounds per capita in 1956-57 1/. Per capita distribution was by far the highest in Louisiana, with 35.1 pounds, and South Carolina, with 28.1 pounds. Other leading States were Florida, with 9.6 pounds; New York, 7.7 pounds; Georgia, 6.9 pounds; and Texas and California, each with 6.2 pounds.

1/ Total per capita food consumption of rice in 1956-57 was 5.8 pounds.

Rice millers and repackagers shipped about 93 percent of the total rice for direct food use, and the Government distributed the remaining 7 percent in 1956-57. Rice millers and repackagers distributed 60 percent of their rice in consumer packages and 40 percent in bags and bulk.

Of the total rice distributed for food use in the United States in 1956-57, about 55 percent was long grain, 38 percent medium grain, and 7 percent short grain.

A total of 3.6 million hundredweight of milled rice, about two-thirds being of the short-grain type, was shipped to Alaska, Hawaii, Puerto Rico, and the Virgin Islands in the 1957 marketing year, with Puerto Rico taking about 84 percent of the total. Shipments of rice from the United States to Puerto Rico was at a rate of 132.3 pounds per person; to Hawaii, 97.1 pounds; and to the Virgin Islands, 63.3 pounds--much higher than the highest per capita rate of any State, 35.1 pounds.

BACKGROUND AND METHODOLOGY

This study was conducted to provide the domestic rice industry with fundamental information on the characteristics of the domestic market for rice. At the request of various segments of the rice industry, the Department of Agriculture surveyed rice millers and repackagers 2/ to determine the distribution pattern by States and territories of the United States. The data collected give a reliable picture of domestic rice markets with respect to location, size of markets, and variations between markets. To further pinpoint certain aspects of rice marketing, data are presented dealing with kind of buyer, kind of packaging, and type of rice distributed.

During World War II, and for about 7 years following, supplies of rice for the world market were scarce and world prices were relatively high. During this period, rice production in the United States more than doubled. The increase in rice production was accomplished by increases in yields per acre and in number of acres planted.

The impetus behind the increase in rice production was the higher prices caused by increased export demand for United States rice resulting from war and postwar disruption in production and lack of available supplies from other exporting countries. During World War II, and the 7 following years, United States exports of rice increased over 400 percent. Beginning in 1952, world rice export supplies began to increase and importing countries became more nearly self-sufficient. Prices of rice in world trade began to move downward by the fall of 1953. Rice production continued to increase in this country, causing surpluses to accumulate and making acreage controls necessary beginning in 1955. Exports dropped from 17 million hundredweight of milled-equivalent rice for the 1952 crop year to less than 13 million hundredweight for the 1955 crop year. Government program exports accounted for over 50 percent of the total United States rice exports in 1955, 1956, and 1957.

2/ A repackager is a firm which purchases rice in bulk, repackages it in consumer packages, and distributes it to wholesale and retail outlets for sale to consumers.

With the tightening of the export market, the rice industry placed greater attention on the possibilities of expanding the domestic market. Unlike many carbohydrate foods, per capita consumption of rice has registered some gains in recent years. Nevertheless, per capita consumption continues relatively low compared with other carbohydrate foods, amounting to only about 5.8 pounds (including direct and processed food uses, but excluding brewery use). The per capita consumption of potatoes is about 105 pounds. Little information has been available heretofore on domestic distribution patterns to assist the industry in its efforts to increase domestic sales. The detailed information developed through this study should be helpful in evaluating possibilities for expanding markets.

All rice millers in the Southern States and in California and all known repackagers of rice were included in the survey. Mills and repackagers were surveyed in early 1957 on their rice shipments during the marketing year August 1, 1955-July 31, 1956, and in 1958 on their rice shipments during the marketing year August 1, 1956-July 31, 1957. A preliminary report, "Domestic Distribution Pattern for Rice," AMS-193, covering 1955-56 rice shipments was released during 1957. Data presented for each of the 2 years represent an estimated 98 percent of the rice distributed in the continental United States and territories [3].

The quantity of rice reported shipped to each State for direct food use provides the best available indication of rice consumption for direct food use. However, actual consumption may differ slightly because consumers in cities located near State boundaries may purchase some of their food in one State and reside in another. In addition, wholesale distributors located close to State boundaries may distribute rice into two or more States. Examples of large cities where this practice may be prevalent are New York, Philadelphia, Cincinnati, St. Louis, and Washington, D. C.

TOTAL RICE DISTRIBUTION PATTERNS

Rice distribution for 1956-57 followed a pattern similar to that of 1955-56. Distribution of milled rice for all purposes in the continental United States and territories, covered in this survey, totaled 16,062,300 hundredweight during 1956-57, slighly lower than the 16,307,100 hundredweight distributed in 1955-56 (table 1). In both marketing years about 78 percent of all shipments were within the continental United States and the remaining 22 percent were to territories. Direct food uses in the United States in 1956-57 accounted for 8,153,900 hundredweight of milled rice or 50.8 percent of the total, compared to 8,117,600 hundredweight in 1955-56. Rice millers and repackagers distributed 93 percent of the total going to direct food use in 1956-57, while 7 percent was distributed by the Government from Commodity Credit Corporation stocks to schools, institutions, and welfare agencies. In 1955-56, the proportions distributed were 94.5 percent and 5.5 percent, respectively. Processed food uses took 1,560,600 hundredweight of milled rice in 1956-57 or 9.7 percent

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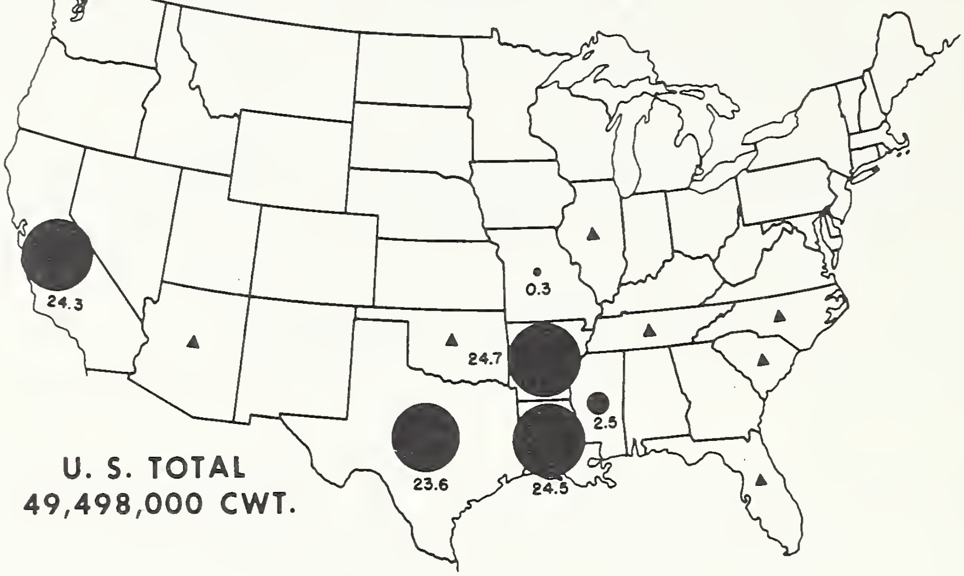
[3] The term "territories" in this report refers to the States of Alaska and Hawaii, which were territories in the period covered by the report, and to Puerto Rico and the Virgin Islands.

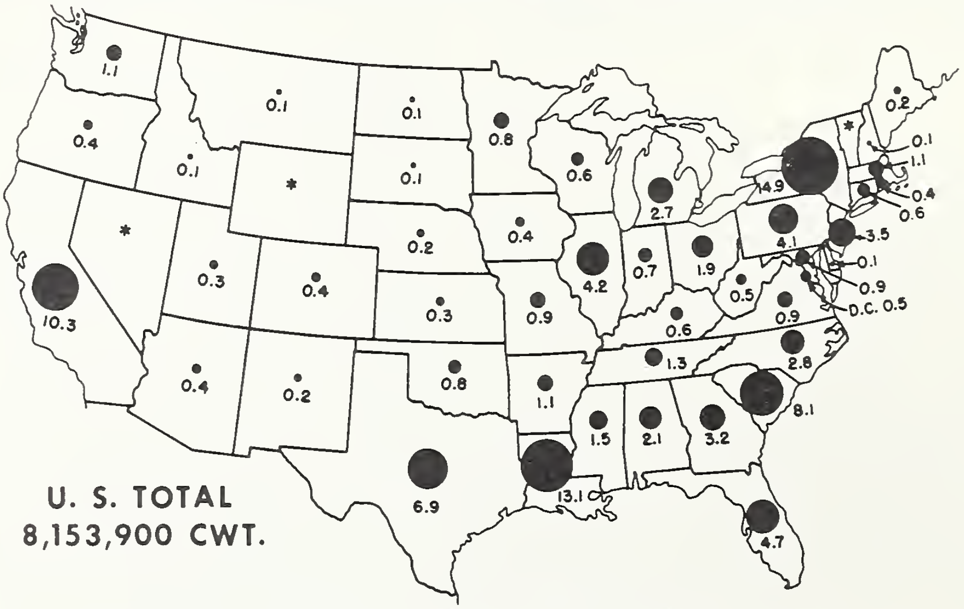
RICE PRODUCTION & DISTRIBUTION, 1956-57

By States, as Percentage of U. S. Total

FARM PRODUCTION°



DISTRIBUTION FOR DIRECT FOOD USE⁺



▲ COMBINED PRODUCTION OF THESE STATES REPRESENTS LESS THAN 0.1 PERCENT OF U. S. TOTAL

* LESS THAN 0.1 PERCENT OF U. S. TOTAL ○ ROUGH RICE, 1956 CROP YEAR ⁺ MILLED RICE, AUGUST 1, 1956 TO JULY 31, 1957

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Figure 1

of the total 4/. Direct and processed food uses in 1956-57 together took 9,714,500 hundredweight or 60.5 percent of the total milled rice distributed to the United States and territories. The amount of milled rice going to brewers was 2,776,400 hundredweight or 17.3 percent of the total. Rice shipped to the territories amounted to 3,571,400 hundredweight.

DISTRIBUTION BY STATES FOR DIRECT FOOD USE 5/

Distribution of rice for direct food use was uneven (fig. 1). About 92 percent of the direct food use rice was distributed for consumption to States located in the Eastern half of the United States and to 3 of the major production States, Louisiana, California, and Texas (tables 2, 3, and 4). As in the previous marketing year, the leading States during 1956-57 were New York which received 14.9 percent of total distribution followed by Louisiana with 13.1 percent, California with 10.3 percent, South Carolina with 8.1 percent, and Texas with 6.9 percent. These five leading States, with 26 percent of the United States population, accounted for about 53 percent of the United States total of rice for direct food use. Other States of some importance in the quantity of rice distributed to them in 1956-57--each with 2.5 to 5 percent of the total--were Florida, Illinois, Pennsylvania, New Jersey, Georgia, North Carolina, and Michigan. As in 1955-56, these 7 States plus the 5 leading States took almost 80 percent of rice distributed for direct food use in the United United States (table 5). In contrast, 20 States took less than 5 percent and 9 of these took less than 1 percent of the total (tables 2 and 3).

Certain States account for most of the quantity of rice distributed to their regions for food consumption in 1956-57 (table 2). California took 87 percent of all the rice distributed in the Pacific region, and New York, 66 percent of the Middle Atlantic total. Louisiana took 60 percent of the rice going into direct food consumption in the West South Central region; Louisiana and Texas totaled 92 percent of that region's rice consumption. Illinois and Michigan took most of the rice for food consumption in the East North Central region--69 percent of the total.

Large variations occurred among regions and States with regard to the amount of rice distributed for food per person (tables 2, 3, and 4). Regional per capita distribution of rice in both marketing years averaged the greatest in the West South Central region, about 11 pounds, and was lowest in the West North Central region with about 1.5 pounds (fig. 2 and table 4). States ranged from a high of 35.1 pounds per capita in Louisiana to a low of 0.7 pound in Wyoming (fig. 3). In 1955-56, distribution varied from 37.0 pounds to 0.6 pound in these same States. The only State approaching Louisiana in per capita consumption in 1956-57 was South Carolina, with 28.1 pounds (fig. 3 and table 2). Other States with relatively high direct food consumption of rice per person were Florida, 9.6 pounds; New York, 7.7 pounds; Georgia, 6.9 pounds; and Texas and California, each with 6.2 pounds (fig. 3 and table 2). Only 12 States and

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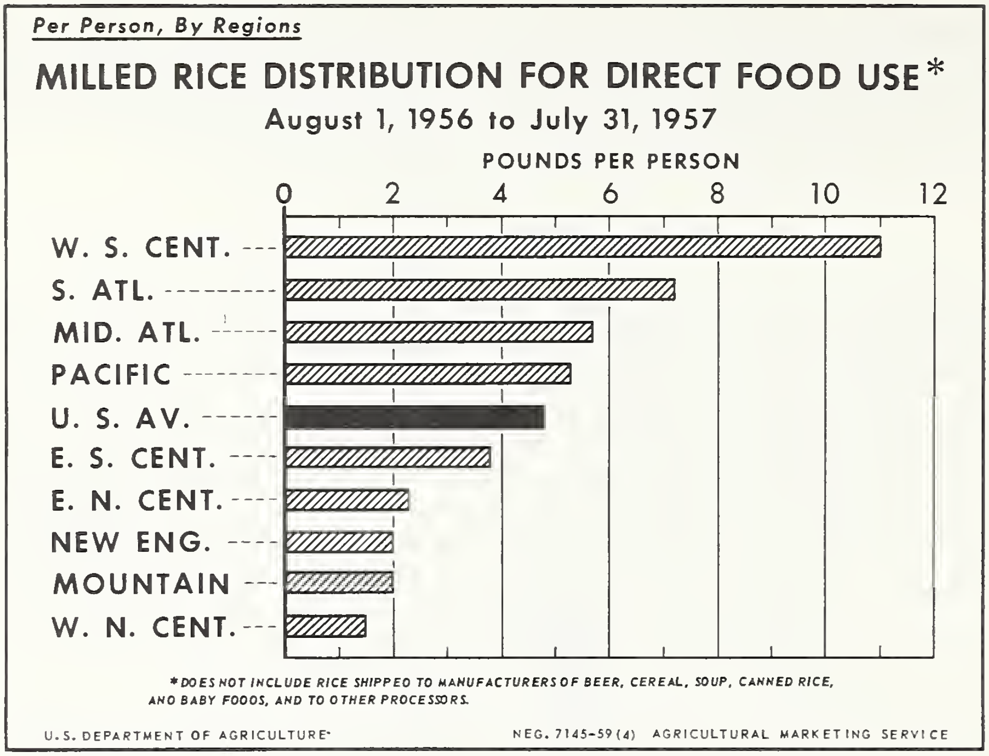
4/ Processed food uses include the manufacture of cereal, soup, canned rice, and baby food, and other processing.

5/ Does not include rice shipped to manufacturers of beer, cereal, soup, canned rice, and baby food, and to other processors.



Per Person, By Regions

MILLED RICE DISTRIBUTION FOR DIRECT FOOD USE*

August 1, 1956 to July 31, 1957

*DOES NOT INCLUDE RICE SHIPPED TO MANUFACTURERS OF BEER, CEREAL, SOUP, CANNED RICE, AND BABY FOODS, AND TO OTHER PROCESSORS.

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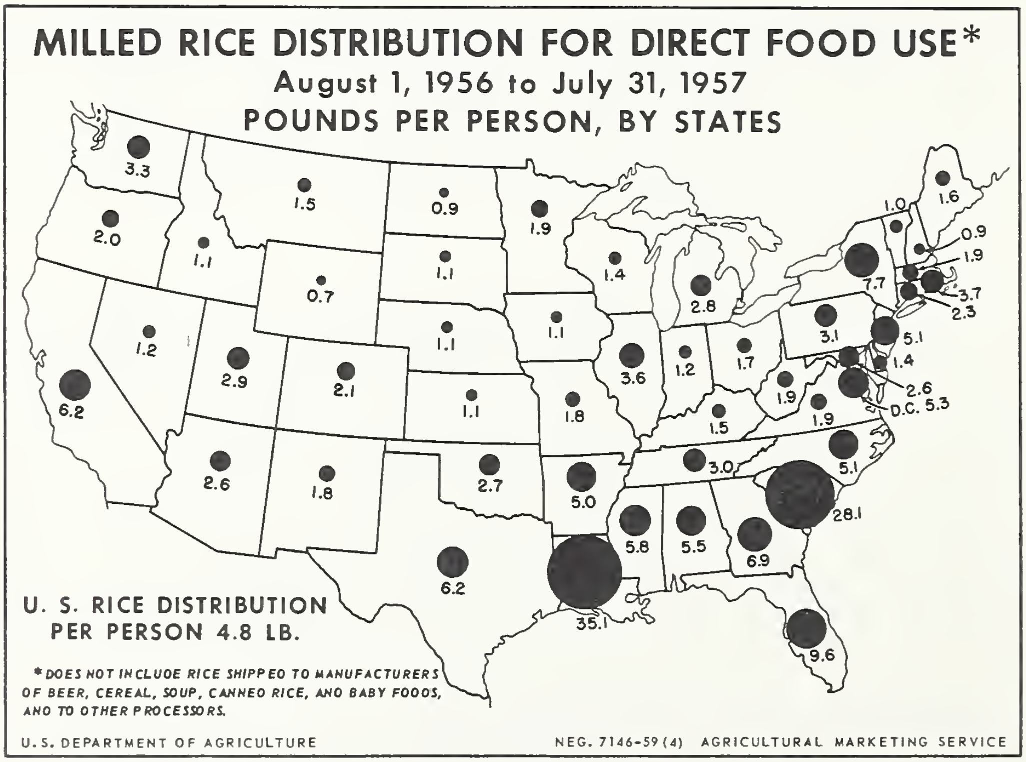
Figure 2



MILLED RICE DISTRIBUTION FOR DIRECT FOOD USE*

August 1, 1956 to July 31, 1957

POUNDS PER PERSON, BY STATES

U. S. RICE DISTRIBUTION PER PERSON 4.8 LB.

*DOES NOT INCLUDE RICE SHIPPED TO MANUFACTURERS OF BEER, CEREAL, SOUP, CANNED RICE, AND BABY FOODS, AND TO OTHER PROCESSORS.

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Figure 3

the District of Columbia indicated direct food consumption higher than the United States average of 4.8 pounds per capita in 1956-57. Fifteen States each used for direct food 1.5 pounds or less per person per year. Per capita amounts and percentages of United States total received by States showed little change from 1955-56 to 1956-57 (table 5).

Package Information

Distribution of rice for direct food use by rice millers and repackagers was found to be approximately 60 percent in consumer packages of 10 pounds or less, and 40 percent in bags and bulk in both marketing years studied. Wide variation was found between States in the proportion of rice distributed in consumer packages and in bags and bulk (tables 2 and 3). In both marketing years, New York and California, both large consumers of rice, and Washington had considerably more distributed in bags and bulk than in consumer packages. Information on packaging of rice distributed by the Government was not available.

Type of Grain

Of the total rice distributed for food use in the United States in 1956-57 about 55 percent was of the long-grain type, 38 percent medium-grain, and 7 percent short-grain (table 2). There was little change from the preceding marketing year (table 3).

In both marketing years, long-grain rice was the most popular rice for food use in most States and regions. Long-grain rice accounted for 75 percent or more of the rice distributed in 13 States and led in popularity in a total of 34 States. Medium-grain rice was the leading type distributed in the remaining 14 States. Short-grain rice found its greatest use for direct food in the Pacific region, where it amounted to about 17 percent of total distribution. About 17.5 percent of total shipments to New York State was also short grain; however, in many States, little or no short-grain rice was distributed.

DISTRIBUTION FOR PROCESSING USES

Distribution of milled rice for processing in 1956-57 amounted to 4,337,000 hundredweight, somewhat lower than the 1955-56 distribution of 4,673,700 hundredweight. In both marketing years, brewers and cereal manufacturers provided the major outlets for rice used in processing, accounting for about 93 percent of the total (table 6). In 1956-57, the brewing industry took 64.0 percent of the domestic distribution of milled rice for use in processing; cereals, 28.9 percent; canned rice and baby food, 4.4 percent; soup, 1.6 percent; and other uses 1.1 percent. A similar distribution pattern was present for the 1955-56 marketing year.

Almost equal quantities of long-, medium-, and short-grain rice were used for processing in both marketing years, but there was a considerable quantity not classified as to type (table 6). Considerable variation occurred in type of rice used for the various kinds of products. Brewers used large quantities of all three types of rice, but mills frequently were unable to classify the broken rice going to brewers as to type of grain. Rice going into cereals was almost two-thirds medium-grain and one-third short-grain, with no long-grain rice being used. In canned rice and baby food, all three types of rice were used; however, long-grain rice accounted for most of the rice going to this use. About two-thirds of the rice going into miscellaneous food processing uses was of the long-grain type and one-third was medium-grain, with no short-grain rice reported going into these other uses.

DISTRIBUTION TO TERRITORIES

A total of 3,571,400 hundredweight of milled rice was shipped to Alaska, Hawaii, Puerto Rico, and the Virgin Islands in 1956-57. This was slightly more than the 3,515,800 hundredweight shipped in the previous marketing year. The total shipped in 1956-57 included 236,800 hundredweight taken from Commodity Credit Corporation stocks and distributed to schools, institutions, and welfare agencies. Of the total territorial shipments, 84.1 percent went to Puerto Rico, 15.5 percent to Hawaii, 0.4 percent to the Virgin Islands, and less than 0.1 percent to Alaska. Distribution from continental United States to Puerto Rico was equal to 132.3 pounds per person in 1956-57, several times higher than the highest per capita rate in any State, 35.1 pounds in Louisiana. Hawaii and the Virgin Islands with 97.1 and 63.3 pounds per capita, respectively, were also high relative to distribution on the mainland. Per capita distribution based on shipments from the United States for the 2 marketing years showed little change. In both years approximately two-thirds of the milled rice shipped to territories was of the short-grain type and about one-third of the medium-grain type. For the most part, rice shipped to territories was in bags or bulk. In both years, only small quantities were shipped in consumer packages.

SIGNIFICANCE OF DISTRIBUTION PATTERNS TO RICE INDUSTRY

In evaluating domestic distribution patterns for rice, some salient features may be re-emphasized. It is evident that a relatively small part of the population accounts for the major portion of rice consumption. Per capita distribution to 36 States in 1956-57 was under the national average of 4.8 pounds; 32 of these States received 3.0 pounds or less per person, 24 States received 2 pounds per person or less, and 15 States received 1.5 pounds per person or less. If distribution to the low-consuming States were increased to the national average, this could mean additional yearly sales of about 2,500,000 hundredweight for direct food use, an increase of about 31 percent over present distribution. This is not intended to represent either a minimum or a maximum potential, but it does indicate the magnitude of gains that may be possible through development of markets in present low-consuming areas. The basic data presented in this report provide benchmarks from which to evaluate results of increased sales, educational, and promotional activities of the rice industry.

Table 1.--Milled rice shipments by rice millers and repackagers to continental United States and territories, 1955-56 and 1956-57

Use 1/	August 1, 1955 to July 31, 1956		August 1, 1956 to July 31, 1957	
	Amount	Percentage of total	Amount	Percentage of total
	1,000 cwt.	Percent	1,000 cwt.	Percent
Continental United States:				
Direct food use 2/	8,117.6	49.8	8,153.9	50.8
Processed food use	1,506.9	9.2	1,560.6	9.7
Total food use	9,624.5	59.0	9,714.5	60.5
Brewing industry 3/	3,166.8	19.4	2,776.4	17.3
Total United States	12,791.3	78.4	12,490.9	77.8
Territories 4/	3,515.8	21.6	3,571.4	22.2
Total	16,307.1	100.0	16,062.3	100.0

1/ Military food use and such small quantities of milled rice as may have been used for starch, feed, and other miscellaneous purposes are not accounted for.

2/ Includes 444,800 hundredweight distributed from Commodity Credit Corporation stocks to schools, institutions, and welfare agencies in 1955-56 and 560,600 hundredweight in 1956-57.

3/ Internal Revenue Service reports use by the brewing industry of about 4,176,000 hundredweight in 1955-56, and 3,549,000 hundredweight in 1956-57. All but about 300,000 hundredweight of the difference between mill shipments and reported usage can be accounted for in each of the marketing years by reduction of stocks of broken rice held by brewers, direct purchases of Commodity Credit Corporation stocks, or imports of broken rice. The amounts unaccounted for may be reflected in the quantities reported as direct food use.

4/ Includes 58,100 hundredweight distributed from Commodity Credit Corporation stocks to schools, institutions, and welfare agencies in 1955-56 and 236,800 hundredweight in 1956-57.

Table 2.--Milled rice received for direct food use: Distributor, amount per capita, and type of grain, by State and region, August 1, 1956, to July 31, 1957

State and region	Distributor				Percentage of U. S. total	Per capita 3/	Type of grain			
	Rice millers and repackagers		Government 2/	Total						
	Consumer packages 1/	Bags and bulk					Long	Medium	Short	Total
	1,000 cwt.	1,000 cwt.	1,000 cwt.	1,000 cwt.	Percent	Pounds	Percent	Percent	Percent	Percent
Maine	13.7	1.1	0	14.8	0.2	1.6	58.3	41.7	0	100.0
New Hampshire	2.7	.6	2.0	5.3	.1	.9	82.7	17.3	0	100.0
Vermont	2.6	.1	1.2	3.9	4/	1.0	84.7	15.3	0	100.0
Massachusetts	71.1	15.8	4.8	91.7	1.1	1.9	75.6	23.8	.6	100.0
Rhode Island	24.4	5.9	1.2	31.5	.4	3.7	75.6	24.4	0	100.0
Connecticut	47.9	2.1	2.4	52.4	.6	2.3	71.2	28.8	0	100.0
New England	162.4	25.6	11.6	199.6	2.4	2.0	73.3	26.4	.3	100.0
New York	573.4	621.3	22.6	1,217.3	14.9	7.7	48.2	34.3	17.5	100.0
New Jersey	184.1	97.0	4.4	285.5	3.5	5.1	75.0	24.3	.7	100.0
Pennsylvania	215.0	74.7	47.4	337.1	4.1	3.1	62.6	36.6	.8	100.0
Middle Atlantic	972.5	793.0	74.4	1,839.9	22.6	5.7	54.7	33.0	12.2	100.0
Ohio	113.9	27.9	10.0	151.8	1.9	1.7	57.5	38.1	4.4	100.0
Indiana	34.0	3.2	16.3	53.5	.7	1.2	51.8	48.2	0	100.0
Illinois	207.6	111.7	20.3	339.6	4.2	3.6	53.3	41.8	4.9	100.0
Michigan	116.7	68.0	32.5	217.2	2.7	2.8	38.2	51.1	10.7	100.0
Wisconsin	41.3	7.0	3.7	52.0	.6	1.4	47.7	52.3	0	100.0
East North Central	513.5	217.8	82.8	814.1	10.0	2.3	49.9	44.4	5.7	100.0
Minnesota	38.5	18.1	4.9	61.5	.8	1.9	64.8	34.4	.8	100.0
Iowa	19.8	2.7	8.8	31.3	.4	1.1	38.8	61.1	.1	100.0
Missouri	60.9	13.9	1.0	75.8	.9	1.8	51.1	48.9	0	100.0
North Dakota	4.8	.7	.4	5.9	.1	.9	49.2	50.8	0	100.0
South Dakota	2.7	1.1	4.0	7.8	.1	1.1	45.7	54.3	0	100.0
Nebraska	13.5	.7	1.2	15.4	.2	1.1	30.5	69.5	0	100.0
Kansas	18.4	3.0	2.6	24.0	.3	1.1	34.6	64.0	1.4	100.0
West North Central	158.6	40.2	22.9	221.7	2.7	1.5	50.3	49.3	.4	100.0
Delaware	4.7	1.0	.4	6.1	.1	1.4	89.8	10.2	0	100.0
Maryland	64.8	9.6	1.0	75.4	.9	2.6	67.5	32.5	0	100.0
District of Columbia	33.2	10.1	.8	44.1	.5	5.3	64.9	35.1	0	100.0
Virginia	54.5	6.9	10.4	71.8	.9	1.9	57.4	42.6	0	100.0
West Virginia	15.5	.2	21.1	36.8	.5	1.9	27.6	72.4	0	100.0
North Carolina	201.9	16.2	7.6	225.7	2.8	5.1	58.5	41.4	.1	100.0
South Carolina	373.3	278.4	7.9	659.6	8.1	28.1	42.2	53.4	4.4	100.0

Georgia	184.8	63.2	9.2	257.2	3.2	6.9	63.9	33.0	3.1	100.0
Florida	270.4	105.8	8.0	384.2	4.7	9.6	82.2	17.8	0	100.0
South Atlantic	1,203.1	491.4	66.4	1,760.9	21.6	7.2	58.6	39.2	2.2	100.0
Kentucky	18.1	1.1	27.1	46.3	.6	1.5	49.1	50.9	0	100.0
Tennessee	76.6	19.7	6.6	102.9	1.3	3.0	42.4	57.2	.4	100.0
Alabama	138.8	6.9	27.6	173.3	2.1	5.5	68.3	32.7	0	100.0
Mississippi	82.5	10.2	32.9	125.6	1.5	5.8	77.1	22.8	.1	100.0
East South Central	316.0	37.9	94.2	448.1	5.5	3.8	62.3	77.6	.1	100.0
Arkansas	34.4	3.0	50.4	87.8	1.1	5.0	19.6	80.2	.2	100.0
Louisiana	514.3	504.9	46.1	1,065.3	13.1	35.1	34.5	65.5	0	100.0
Oklahoma	19.0	1.4	40.9	61.3	.8	2.7	47.5	52.5	0	100.0
Texas	294.2	233.8	35.4	563.4	6.9	6.2	77.4	16.8	5.8	100.0
West South Central	861.9	743.1	172.8	1,777.8	21.8	11.0	48.3	49.8	1.9	100.0
Montana	8.9	.6	.4	9.9	.1	1.5	65.8	34.2	0	100.0
Idaho	2.8	3.7	.6	7.1	.1	1.1	62.1	14.0	23.9	100.0
Wyoming	1.1	.1	1.0	2.2	4/	.7	83.7	16.3	0	100.0
Colorado	24.1	7.4	2.4	33.9	.4	2.1	49.7	45.9	4.4	100.0
New Mexico	5.9	.7	8.4	15.0	.2	1.8	66.2	33.8	0	100.0
Arizona	21.2	7.2	.6	29.0	.4	2.6	78.1	20.0	1.9	100.0
Utah	11.1	11.6	1.4	24.1	.3	2.9	74.2	14.0	11.8	100.0
Nevada	2.6	.3	.3	3.2	4/	1.2	98.7	1.2	.1	100.0
Mountain	77.7	31.6	15.1	124.4	1.5	2.0	66.6	27.8	5.6	100.0
Washington	38.3	47.2	3.5	89.0	1.1	3.3	55.6	25.5	18.9	100.0
Oregon	21.4	11.4	1.9	34.7	.4	2.0	78.0	15.4	6.6	100.0
California	296.3	532.4	15.0	843.7	10.3	6.2	59.0	23.9	17.1	100.0
Pacific	356.0	591.0	20.4	967.4	11.9	5.3	59.1	24.0	16.9	100.0
United States Total	4,621.7	2,971.6	560.6	8,153.9	100.0	4.8	55.2	38.3	6.5	100.0

1/ Packages of 10 pounds or less.
2/ Breakdown of government distribution between rice consumer packages and rice in bags and bulk was not available.
3/ Population estimates for January 1, 1957, based on Census Bureau estimates were used in calculation.
4/ Less than 0.1 percent.

Table 3.--Milled rice received for direct food use: Distributor, amount per capita, and type of grain, by State and region, August 1, 1955, to July 31, 1956

State and region	Distributor				Percentage of U. S. total	Per capita 3/	Type of grain			Total
	Rice millers and repackagers		Government 2/	Total			Long	Medium	Short	
	Consumer packages 1/	Bags and bulk								
	1,000 cwt.	1,000 cwt.	1,000 cwt	1,000 cwt.	Percent	Pounds	Percent	Percent	Percent	Percent
Maine	10.7	0.8	0.4	11.9	0.1	1.3	64.0	36.0	0	100.0
New Hampshire	3.3	.6	.8	4.7	.1	.8	84.3	15.7	0	100.0
Vermont	2.5	.1	.8	3.4	4/	.9	86.1	13.9	0	100.0
Massachusetts	72.9	36.9	5.2	115.0	1.4	2.4	80.3	14.0	5.7	100.0
Rhode Island	20.1	3.5	1.2	24.8	.3	3.0	79.7	20.3	0	100.0
Connecticut	40.6	2.6	2.4	45.6	.6	2.1	71.5	28.5	0	100.0
New England	150.1	44.5	10.8	205.4	2.5	2.1	77.5	19.3	3.2	100.0
New York	522.4	620.0	16.0	1,158.4	14.3	7.3	47.2	38.4	14.4	100.0
New Jersey	164.8	37.3	3.6	205.7	2.5	3.8	61.3	33.9	4.8	100.0
Pennsylvania	207.0	53.7	36.8	297.5	3.7	2.7	60.0	39.6	.4	100.0
Middle Atlantic	894.2	711.0	56.4	1,661.6	20.5	5.2	51.2	38.1	10.7	100.0
Ohio	113.2	43.2	8.4	164.8	2.0	1.8	51.1	34.6	14.3	100.0
Indiana	33.5	10.9	8.4	52.8	.7	1.2	45.8	54.2	0	100.0
Illinois	199.1	116.6	17.7	333.4	4.1	3.5	55.5	39.4	5.1	100.0
Michigan	131.1	64.4	16.0	211.5	2.6	2.8	40.2	36.3	23.5	100.0
Wisconsin	38.3	15.2	3.2	56.7	.7	1.5	44.0	56.0	0	100.0
East North Central	515.2	250.3	53.7	819.2	10.1	2.4	49.3	39.7	11.0	100.0
Minnesota	35.4	21.3	2.8	59.5	.7	1.8	66.7	33.0	.3	100.0
Iowa	19.6	5.5	10.8	35.9	.4	1.3	23.7	76.3	0	100.0
Missouri	56.5	30.2	3.3	90.0	1.1	2.1	48.5	45.3	6.2	100.0
North Dakota	4.3	2.0	1.2	7.5	.1	1.2	48.4	51.6	0	100.0
South Dakota	4.0	1.2	3.4	8.6	.1	1.3	47.8	52.2	0	100.0
Nebraska	13.0	.6	.8	14.4	.2	1.0	38.0	62.0	0	100.0
Kansas	18.2	4.0	2.0	24.2	.3	1.2	33.5	66.5	0	100.0
West North Central	151.0	64.8	24.3	240.1	3.0	1.6	47.1	50.5	2.4	100.0
Delaware	7.8	.9	0	8.7	.1	2.1	91.9	8.1	0	100.0
Maryland	60.4	8.5	1.7	70.6	.9	2.5	68.9	31.1	0	100.0
District of Columbia	35.8	9.3	1.0	46.1	.6	5.5	69.5	30.5	0	100.0
Virginia	57.8	7.2	10.0	75.0	.9	2.1	58.2	41.8	0	100.0
West Virginia	16.1	.1	26.4	42.6	.5	2.2	27.9	72.1	0	100.0

North Carolina	188.3	11.6	9.2	209.1	2.6	4.8	55.0	44.6	.4	100.0
South Carolina	381.3	223.8	5.2	610.3	7.5	26.4	42.5	54.3	3.2	100.0
Georgia	202.8	51.1	10.4	264.3	3.3	7.2	60.7	38.7	.6	100.0
Florida	272.0	126.9	5.6	404.5	5.0	10.7	80.7	19.1	.2	100.0
South Atlantic	1,222.3	439.4	69.5	1,731.2	21.3	7.3	58.1	40.6	1.3	100.0
Kentucky	20.1	1.0	26.6	47.7	.6	1.6	45.4	54.6	0	100.0
Tennessee	76.3	5.6	7.6	89.5	1.1	2.6	29.8	67.3	2.9	100.0
Alabama	129.0	17.8	28.4	175.2	2.2	5.6	78.3	17.9	3.8	100.0
Mississippi	81.7	25.3	18.0	125.0	1.5	5.9	76.3	22.8	.9	100.0
East South Central	307.1	49.7	80.6	437.4	5.4	3.8	64.2	33.4	2.4	100.0
Arkansas	38.1	46.5	30.0	114.6	1.4	6.5	30.6	56.1	13.3	100.0
Louisiana	651.8	409.1	37.6	1,098.5	13.5	37.0	30.2	68.8	1.0	100.0
Oklahoma	23.9	1.6	28.4	53.9	.7	2.4	47.6	52.4	0	100.0
Texas	318.8	164.3	24.0	507.1	6.2	5.7	81.9	17.3	.8	100.0
West South Central	1,032.6	621.5	120.0	1,774.1	21.9	11.2	45.5	52.8	1.7	100.0
Montana	9.3	.8	.7	10.8	.1	1.7	67.0	23.0	0	100.0
Idaho	3.9	2.9	.3	7.1	.1	1.2	67.2	13.7	19.1	100.0
Wyoming	1.2	.1	.5	1.8	4/	.6	82.5	17.5	0	100.0
Colorado	23.0	5.2	1.6	29.8	.4	1.9	52.1	47.9	0	100.0
New Mexico	5.7	.7	6.0	12.4	.2	1.5	67.2	32.8	0	100.0
Arizona	17.6	5.6	1.2	24.4	.3	2.3	78.9	18.5	2.6	100.0
Utah	10.4	7.0	2.0	19.4	.2	2.4	64.8	25.8	9.4	100.0
Nevada	2.6	.2	.3	3.1	4/	1.2	96.8	0	3.2	100.0
Mountain	73.7	22.5	12.6	108.8	1.3	1.8	66.3	30.1	3.6	100.0
Washington	33.5	53.1	2.9	89.5	1.1	3.4	54.3	16.0	29.7	100.0
Oregon	21.8	15.0	.3	37.1	.5	2.2	76.6	9.8	13.6	100.0
California	277.8	721.7	13.7	1,013.2	12.5	7.7	46.4	24.8	28.8	100.0
Pacific	333.1	789.8	16.9	1,139.8	14.0	6.5	48.0	23.6	28.4	100.0
United States Total	4,679.3	2,993.5	444.8	8,117.6	100.0	4.9	53.5	38.2	8.3	100.0

1/ Packages of 10 pounds or less.

2/ Breakdown of government distribution between rice consumer packages and rice in bags and bulk was not available.

3/ Population estimates for January 1, 1956, based on Census Bureau estimates were used in calculation.

4/ Less than 0.1 percent.

Table 4.--Direct food use of milled rice in United States, by region in order of relative importance 1/

August 1, 1955, to July 31, 1956

Rank and region	Percentage of U.S. total	Rank and region	Per capita
	Percent		Pounds
1. West South Central	21.9	1. West South Central	11.3
2. South Atlantic	21.3	2. South Atlantic	7.4
3. Middle Atlantic	20.5	3. Pacific	6.6
4. Pacific	14.0	4. Middle Atlantic	5.1
5. East North Central	10.1	5. East South Central	3.8
6. East South Central	5.4	6. East North Central	2.4
7. West North Central	3.0	7. New England	2.1
8. New England	2.5	8. Mountain	1.8
9. Mountain	1.3	9. West North Central	1.6
United States total	100.0	United States average	4.9

August 1, 1956, to July 31, 1957

Rank and region	Percentage of U.S. total	Rank and region	Per capita
1. Middle Atlantic	22.6	1. West South Central	10.9
2. West South Central	21.8	2. South Atlantic	7.1
3. South Atlantic	21.6	3. Middle Atlantic	5.7
4. Pacific	11.9	4. Pacific	5.3
5. East North Central	10.0	5. East South Central	3.8
6. East South Central	5.5	6. East North Central	2.3
7. West North Central	2.7	7. New England	2.0
8. New England	2.4	8. Mountain	2.0
9. Mountain	1.5	9. West North Central	1.4
United States total	100.0	United States average	4.8

1/ Does not include rice shipped to manufacturers of beer, cereal, soup, canned rice, and baby food, and to other processors.

Table 5.--Direct food use of milled rice, 15 leading States 1/

August 1, 1955, to July 31, 1956

Rank and State	Percentage of U. S. total	Rank and State	Per capita
	Percent		Pounds
1. New York	14.3	1. Louisiana	37.1
2. Louisiana	13.5	2. South Carolina	26.5
3. California	12.5	3. Florida	11.0
4. South Carolina	7.5	4. California	7.7
5. Texas	6.2	5. Georgia	7.3
6. Florida	5.0	6. New York	7.2
7. Illinois	4.1	7. Arkansas	6.4
8. Pennsylvania	3.7	8. Mississippi	5.9
9. Georgia	3.3	9. Texas	5.8
10. North Carolina	2.6	10. Alabama	5.6
11. Michigan	2.6	11. Dist. of Columbia	5.5
12. New Jersey	2.5	12. North Carolina	4.8
13. Alabama	2.2	13. New Jersey	3.8
14. Ohio	2.0	14. Illinois	3.6
15. Mississippi	1.5	15. Washington	3.5

August 1, 1956, to July 31, 1957

Rank and State	Percentage of U. S. total	Rank and State	Per capita
1. New York	14.9	1. Louisiana	34.7
2. Louisiana	13.1	2. South Carolina	27.8
3. California	10.3	3. Florida	9.4
4. South Carolina	8.1	4. New York	7.7
5. Texas	6.9	5. Georgia	6.8
6. Florida	4.7	6. Texas	6.2
7. Illinois	4.2	7. California	6.1
8. Pennsylvania	4.1	8. Mississippi	5.7
9. New Jersey	3.5	9. Alabama	5.5
10. Georgia	3.2	10. Dist. of Columbia	5.3
11. North Carolina	2.8	11. New Jersey	5.1
12. Michigan	2.7	12. Arkansas	5.0
13. Alabama	2.1	13. North Carolina	5.0
14. Ohio	1.9	14. Rhode Island	3.7
15. Mississippi	1.5	15. Illinois	3.5

1/ Does not include rice shipped to manufacturers of beer, cereal, soup, canned rice, and baby foods, and to other processors.

Table 6.--Domestic milled rice used for processed products in continental United States, 1955-56 and 1956-57

Marketing year and type of rice	Type of product					Total	Percentage of U.S. total
	Cereal	Soup	Canned rice and baby food	Beer 1/	Other		
	1,000 cwt.	1,000 cwt.	1,000 cwt.	1,000 cwt.	1,000 cwt.	1,000 cwt.	Percent
1955-56: 2/							
Long grain	5.4	95.4	70.5	737.9	11.1	920.3	19.7
Medium grain	808.1	5.9	25.3	510.6	4.3	1,354.2	29.0
Short grain	455.5	0	7.9	651.6	0	1,115.0	23.8
Unclassified	0	0	17.5	1,266.7	0	1,284.2	27.5
Total	1,269.0	101.3	121.2	3,166.8	15.4	4,673.7	100.0
Percent	27.1	2.2	2.6	67.8	.3	100.0	--
1956-57: 2/							
Long grain	0	69.3	82.5	1,157.5	33.7	1,343.0	31.0
Medium grain	785.6	.8	31.6	341.0	15.3	1,174.3	27.1
Short grain	459.3	0	12.7	719.4	0	1,191.4	27.4
Unclassified	5.2	0	64.6	558.5	0	628.3	14.5
Total	1,250.1	70.1	191.4	2,776.4	49.0	4,337.0	100.0
Percent	28.9	1.6	4.4	64.0	1.1	100.0	--

1/ Does not include rice purchased by brewers from Commodity Credit Corporation, imports, or reduction of brewers' stocks.
2/ August 1 to July 31.

Table 7.--Milled rice shipped from continental United States to territories: Distributor, amount per capita, and type of grain, 1955-56 and 1956-57

Marketing year and territory	Distributor				Percentage of U. S. total	Per capita 3/	Type of grain			Total
	Rice millers		Government 2/	Total						
	Consumer packages 1/	Bags and bulk					Long	Medium	Short	
	1,000 cwt.	1,000 cwt.	1,000 cwt.	1,000 cwt.	Percent	Pounds	Percent	Percent	Percent	Percent
1955-56: 4/										
Alaska..........	0.1	0	0.4	0.5	5/	0.3	100.0	0	0	100.0
Hawaii..........	50.5	424.1	7.2	481.8	13.7	93.6	2.9	19.1	78.0	100.0
Puerto Rico.....	2.1	2,966.6	49.9	3,018.6	85.9	134.0	.1	34.8	65.1	100.0
Virgin Islands..	.1	14.2	.6	14.9	.4	62.1	N.A.	N.A.	N.A.	100.0
Total.........	52.8	3,404.9	58.1	3,515.8	100.0	118.0	.6	32.8	66.6	100.0
1956-57: 4/										
Alaska..........	0	0	0.2	0.2	5/	0.1	100.0	0	0	100.0
Hawaii..........	81.0	468.0	4.6	553.6	15.5	97.1	2.6	29.6	67.8	100.0
Puerto Rico.....	50.3	2,720.6	231.5	3,002.4	84.1	132.3	.5	35.0	64.5	100.0
Virgin Islands..	.2	14.5	.5	15.2	.4	63.3	N.A.	N.A.	N.A.	100.0
Total.........	131.5	3,203.1	236.8	3,571,4	100.0	116.2	.9	34.5	64.6	100.0

1/ Packages of 10 pounds or less.

2/ Rice distributed to schools, institutions, and welfare agencies from Commodity Credit Corporation stocks. Data from Food Distribution Division, Agricultural Marketing Service.

3/ Based on January 1, 1956 and 1957 population estimates, Bureau of the Census.

4/ August 1 to July 31.

5/ Less than 0.1 percent.